DOCUMENT RESUME

ED 262 561 FL 015 202

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TITLE The Cross-Cultural Study of Language Acquisition.
PUB DATE Aug 85
NOTE 22p.
PUB TYPE Reports - Research/Technical (143) -- Journal Articles (080)
JOURNAL CIT Papers and Reports on Child Language Development; v24 p1-21 Aug 1985

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Anthropological Linguistics; *Child Language; Comparative Analysis; Cross Cultural Studies; *Cultural Influences; *Language Acquisition; Language Styles; *Social Influences; *Socialization; *Sociocultural Patterns

ABSTRACT

One approach to studying the nature of diverse speech exchange systems across sociocultural groups starts from the premise that all learning is cultural learning, and that language socialization is the way individuals become members of both their primary speech community and their secondary speech communities. Researchers must recognize that the uniquely human aspects of socialization as cultural communication rest on the individual and the primary social group's orientation toward the future. The pace of the child's development is determined by the growth of conceptual and communicative capacities in conjunction with schemata of cognition, which are influenced by language socialization practices. One way to understand how the child grasps that which is available for perception is to examine the range of genres in discourse. Several genres are universal forms of extended discourse in child language learning: recasts (bringing to present attention experiences from the past in which the speaker had a role), eventcasts, accounts, and stories. There is social group variation in the space, time, and social organization of genres. Preliminary comparison of situations and genres across societies suggests that academic success depends not on the specific language children know but on the ways they know of using the language. (MSE)

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THE CROSS-CULTURAL STUDY OF LANGUAGE ACQUISITION

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1. Introduction

Last fall, while browsing in the library, I came across a book which has played a considerable role in my thinking about social science research these past few months. The book, entitled Genesis and Development of a Scientific Fact, by Ludwig Fleck, outlines the intellectual history of research on syphilis and the discovery of the Wassermann reaction. Written in German in 1935 and available in English only in 1981, Fleck's book is a singular treatment of the dilemmas of what he terms a Denkkollektiv or thought collective. He examines the question "What is a fact for a thought collective?" He argues that discoveries which come about after many errors, detours, and usually considerable co-construction in talk with colleagues are then often presented as rational narratives of the action of an individual. He also argues facts in a thought collective actually act as constraints on the group's thought style, because they appear to be absolute, immutable, and reproducible when in reality they are not.

Fleck points out that thought collectives--such as the academic disciplines--condition thought styles so that researchers have a readiness for directed perception, with corresponding mental and objective assimilation of what has been so perceived. Scholars in a single discipline are characterized by the common problems they bring to the thought collective, by judgments the thought collective makes about what constitutes evidence, and by the methods of replication and verification which its scholars apply. These linkages among members of a thought collective are for Fleck more important than the collective agreement Thomas Kuhn assigned to those who subscribe to the same paradigm. Fleck points out that the characteristic thought style of a Denkkollektiv accompanies a technical and literary style, which, along with methods of approach and confirmation of facts, receives social reinforcement. Fleck warns that thought collectives continue without being aware that they come to participate in "a kind of harmony of illusions."

Fleck's book addresses a central issue which has played a substantial role in blocking the cross-cultural study of language acquisition: the transmission of ideas between thought collectives or across disciplines approaching the same problem. Fleck points out that the greater the difference between thought styles of different thought collectives, the more inhibited will be the cross-fertilization of ideas; one collective may come to see another as subscribing to an "alien way of thought [which] seems like mysticism." Fleck points out the questions that an established thought collective

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rejects will be taken up by other thought collectives as the most important ones, but the first thought collective will regard explanations of the second as proving nothing or as missing the point, its problems as often unimportant or "meaningless trivialities" (Fleck, 1981, p. 109).

Fleck's cautions seem especially appropriate for anthropological linguists (or linguistic anthropologists--the two terms currently do not seem to carry different meanings) who are now studying child language, a research area which has traditionally been shaped by either psychology or formal linguistics. Moreover, anthropology is a thought collective which is currently breaking into several thought collectives on the basis of differing degrees of alliance with positivistic and "natural science" approaches, on the one hand, and with the humanities, on the other. Those who speak of humanistic anthropology, symbolic anthropology, or interpretive and cultural history argue as Clifford Geertz did in a recent issue of American Anthropologist that upsetting thought collectives and thought styles is what Anthropology "should" be all about. Geertz writes:

> Looking into dragons, not domesticating or abominating them, nor drowning them in vats of theory, is what anthropology has been all about....We have, no doubt, on occasion moved too far in this direction and transformed idiosyncrasies into puzzles, puzzles into mysteries, and mysteries into humbug. But such an affection for what doesn't fit and won't comport, reality out of place, has connected us to the leading theme of the cultural history of 'Modern Times.' For that history has indeed consisted of one field of thought after another having to discover how to live on without the certainties that launched it....It is, so I think, precisely the determination not to cling to what once worked well enough and got us to where we are and now doesn't quite work well enough and gets us into recurrent stalemates that makes a science move. (1984, p. 275).

Geertz' words bring me to the point of these seemingly irrelevant introductory remarks. I and other scholars who do research which is grounded in a long-term relationship with a society and which addresses language learning within non-mainstream cultures stand outside the central thought collective which addresses child language. Much of what we report does not bear the ordered certainty of the data and analyses of child language researchers who carry out experiments either in laboratories or in the homes of mainstream middle-class first-born children interacting primarily with mothers as caregivers.

Our fundamental presuppositions, methods of data collection, narrative reportage, and assumptions about reliability, replicability, and generalizability are at odds with the thought collective of child language scholars with whom we wish to communicate. I am not the first to address this dilemma; before me several, including Jenny Cook-Gumperz, Elinor Ochs, and Bambi Schieffelin, have taken up these issues on a variety of specific points in child language. However, it

seems to me that with the forthcoming publication of Dan Slobin's edited volume The cross-linguistic study of language acquisition (1985), we have a fresh opportunity to look at these issues and consider the barriers between the thought collectives who would study child language.

2. Precursors of the cross-cultural study of language acquisition

The nature of diverse speech exchange systems across sociocultural groups and their availability to the observer present fundamental methodological problems for the child language researcher. Yet few scholars have taken up this challenge. We all remember that some early ethnographers of communication (including some psycholinguists, such as Dan Slobin and Susan Ervin-Tripp) joined together at Berkeley, shortly after the publication of the Gumperz and Hymes special issue of American Anthropologist on "the ethnography of communication" to develop A Field Manual for Cross-Cultural Study of the Acquisition of Communicative Competence (Slobin, 1967). The manual placed the acquisition of grammar into a context of broader social and cultural learning and required methods beyond the scope of traditional psycholinguistics. The manual included six experiments modeled on previous psycholinguistic experiments done with English-speaking children, and specific settings and techniques, such as children at play and interviews about language beliefs and use, were recommended. Between 1968 and the present, a number of fieldworkers took the field manual to various field sites around the world, but the research goals of the manual were not accomplished. Of the studies completed--and several were aborted--relatively few recorded interactional data, many provided very little contextual information, and all those who tried the experiments admitted they had to be conducted in highly inappropriate settings. Schieffelin (1979) reviewed the history of work influenced by the manual and concluded that its underlying positivistic design made its recommendations inappropriate for collecting data on the learning of language and culture or culture through language. But this assessment could not have predicted the current dissolution of anthropology into several thought collectives with differing degrees of doubt on issues ranging from the unit of analysis to the role of the observer in collecting child language data.

Today an increasing number of anthropologists argue that what they say must bear the mark of "historical consciousness"--what is said of the present must be grounded in the past or it is presumed to have less value than that which reports only the ethnographic present (cf. Ferguson, 1977). These anthropologists argue that in an even deeper sense, ethnography and ethnographic reportage owe a debt to the past that cannot be captured in even "historical" or social history reporting; what the anthropologist sees are reflections of a consciousness which bears the impress of particularized experience. Thus a truly "historical" ethnography must be one in which personal and cultural history are analyzed as they affect one's knowlege of the present (cf. White, 1978; Rosaldo, 1980; Stoller, 1984). The form in

which one must share the information collected--the narrative--raises yet another difficulty, for narrative form in history and ethnography, as in fiction, is an artifice of the individual imagination. It may claim that it represents a real and verifiable set of interrelationships in past actuality, but unlike the hypothesis in science, narrative history or narrative ethnography does not typically lead to research that can confirm or disconfirm it. The dilemma then is that the kind of research on child language that social or cultural historians and anthropologists do to embed the child's learning of a language in his or her socialization cannot claim validity or the status of scientific fact by the accepted procedures of argument or authentication held by the thought collectives of psychologists and linguists central to the field of child language.

For several years, this recognition forced me to delay finishing and publishing Ways with Words (1983). I wanted to be heard in a thought collective which had established norms of judging hypothesis confirmation and theoretical contributions that I could not meet. Once I decided that the narrative of language learning in Roadville and Trackton had to be told, I attempted to provide more of everything in order to build a fortress of substantiation for the facts I presented there: nearly a decade of fieldwork in communities similar to those in which I had myself learned to use language, and an anchoring of the story of the ethnographic present in a social historical account of how those communities had come to be members of the same class but creators of very different cultural and social worlds over the past century. I established my own persona in a book that I intended to be read very much like a novel. In such a narrative, I intended readers to suspend disbelief willingly as they came to know the lives and voices of the individuals of Roadville, Trackton, and their middle-class mainstream black and white neighbors.

My argument here is not that Ways with Words should spur others to carry out decade-long ethnographic research, but to suggest that the time has come for Fleck's cautions about communication across thought collectives to inspire us to think of ways of expanding what we mean by data, means of bringing together different sorts of data, and strategies of analyzing from various perspectives similar types of data. Those who are committed to child language as a field of study must accept the merits of different ways of knowing and search for steps to bring data collected in various settings and by different means together for comparative analysis. I am made brave enough to ask this of members of the Child Language Research Forum, because I read Dan Slobin's brilliant collection (1985) as a challenge to all those who approach child language study to provide much more data on the social strategies of language learning as well as the ethnographic detail which would enable us to interpret the goals of these strategies according to the participants' world views. Slobin writes of the evidence provided in his edited collection:

> Primarily, we have data of child speech, with limited information about the referential and communicative contexts in

> which the speech occurred. Within such data we can discern regularities which correspond to the input language and regularities which deviate from the input. In addition, we have data on the course of development. Our evidence then consists of 1) the sorts of systems that are easily accessible to the child, 2) the ways in which the child alters less accessible systems, and 3) the sorts of systems which pose particular problems in acquisition. On the basis of such unavoidably inadequate data we make guesses about the child's internal representation of language." (p. 5)

Elsewhere in the book, Slobin calls specifically for more ethnographic data to provide information on social strategies children use in gaining access to language models and to opportunities for language use.

3. Maxims for the cross-cultural study of language acquisition

My contribution to this call and my response to a collection that has greatly contributed to my own thinking is to sketch here my current theoretical perspective on the troublesome nexus of language, culture, and thought. I start from the premise that all language learning is cultural learning. Children do not learn merely the building blocks of their mother tongue--its sounds, words, and order; they learn also how to use language to get what they want, inform themselves, express their concerns and imaginative creations, and ask questions about the world. Dell Hymes and John Gumperz have told us this for years; Catherine Snow and others who have recently studied social interaction in child language have reinforced this message. The learning of language takes place within the political, economic, social, ideological, religious, and aesthetic web of relationships of each community whose members see themselves as belonging to a particular culture. Thus as children initially learn their language and how to use it, they learn also about the roles people who are given certain names--such as mother, father, oldest, youngest,--play in their primary social network. Here they learn how decisions are made and enforced, what to eat and drink, how to define and respect what is called beautiful or good, and how to identify, ignore, avoid, or destroy what is called ugly, bad, or worthless.

Language socialization is in the broadest sense the way individuals become members of their primary speech community and later those secondary speech communities with which they come in contact through institutional memberships beyond the family. Language socialization includes all the learning that enables a member of a family and community to behave appropriately within that group which is initially critical to one's self-identification and whose approval is necessary for self-esteem. The family and others such as friends who interact face-to-face on a regular basis with the child form the primary social group from whom a sense of "who am I and what am I worth?" derive. For some children, the primary group provides the major learning environment for the preschool years; for other

children, contexts for learning language extend to secondary social groups, such as churches, daycare programs, and peer groups. Children find their primary social group's uses of language (oral and written) differentially contradicted, confirmed, denied, or ignored by those of the secondary groups. For some children, these secondary settings provide occasions for using a language other than their home language and for using language to exchange information drawn from written sources or authorities who are not intimately known to the children or their primary caregivers.

In considering that a child's language socialization in any society today comes from both primary and secondary social groups, child language researchers must be alert to the fact that the child does not develop autonomous language abilities in relative isolation from the ideology of the family/community and the ideology which relates the ways of believing, behaving, and valuing of the primary group to those of the secondary group. It is absolutely essential that researchers recognize that the uniquely human aspects of socialization as specifically cultural communication rest on the orientation of the individual and his or her primary social group toward the future. In other words, the specific referent of cultural communication used in socialization usually rests in the present or the past, but the pertinence is for future behavior. In a sense, the everyday behaviors of learning are "natural experiments" in that they are occasions in which the learning of the moment brings together what has been learned as well as the at-the-moment learning which is assumed to be preparation for addressing new and future tasks and demands for social exchange and social action. Moreover, this learning of the moment need not be immediately displayed, but it may be stored for use at a much later point in time, when features of the physical and social scene and speaker need coincide.

I suggest in coordination with some of the central messages of Slobin's volume that the pace of development of the child is determined not only by the growth of the conceptual and communicative capacities, but that these operate in conjunction with schemata of cognition which are influenced by language socialization practices. The potential for grammar and schemata development rests in the human neurological and biochemical system; the ultimate shape of their realization and the degree to which they change through lifelong learning rests in the neuronal plasticity and its response to opportunities from primary and secondary group members for observation, participation, and reenforcement or reward. The course of acquisition of the range of linguistic forms from phoneme to discourse reflects an interaction of the child's innate abilities to decipher and cognize both structure and content with affective receptivity to caregivers.

At least four maxims can guide those who would ground their study of child language in the sociocultural networks of the child. First, the study of language socialization must be based on long-term intimate knowledge of the group and its language. Second, the data must be grounded in historically-informed and currently sensitive

descriptions of social organization and components of space and time within the primary group and between the primary and secondary groups. Third, the role assignment and nature of the distribution--fluid or rigid--of critical group functions, such as parenting, must be described and must take into account primary group members' alignment within the social class configuration of the larger regional or national group. Hence, anthropologists who have failed to discuss the social class membership of groups they have studied have avoided a critical issue: class relations between the child's primary network and the secondary institutions from which the child may also learn language and which may ultimately evaluate the child for socieconomic participation. Fourth, studies of language socialization must attend to the acquisition of both oral and written language. In a world which is increasingly being formally schooled --or at the very least driven by the urge to judge oneself by the norms of schooling--we can no longer afford the naive position that the young child learning to speak is not affected by the extent to which the artifacts and events of literacy and literate behavior impinge on occasions for speaking, judging sources of authority, and categorizing and comparing actors and events of the world.

Let me turn now to what I think are the theoretical challenges of the cross-linguistic study of language acquisition for the cross-cultural study of language acquisition. Here I risk what social historians have called "proof by random quotation," because I must in these brief remarks select only some points from Slobin's discussion. Some basic terms will, however, help those who have not read the draft of the book to determine the relationship between my comments and his work. He posits the Language-Making Capacity (LMC) of the child and describes this in terms of a collection of Operating Principles (OPs) which, in some initial form, exist prior to the child's experience with language. As the LMC applies OPs to perceived speech and associated perceptions of objects and events, a preliminary BASIC CHILD GRAMMAR is constructed that guides the production of meaningful, structured utterances--or linguistic structures that are related to meanings. As the child gathers more information about the particular input language, new OPs are brought into play, and this growing body of linguistic data influences the shape of the grammar. The universal initiating operating principles are primarily perceptual and storage filters and pattern makers; these enable the particular divergent grammars of individual languages to be learned. Peters (1983, and in Slobin 1985) has suggested how the filters for the perception and primary storage of speech input work to attend to or perceive as salient certain segments of the visual and speech stream which are to be perceived and stored and which establish the basic organization for retrieval.

The child then extracts, segments, and stores not only segments of the stream of speech for language-making, but also gestalts of Manipulative Activity Scenes. Children perceive scenes in which agents engage in actions with objects; across these scenes, the language-maker associates similarities and differences, focusing on

HIGHLIGHTS--some elements are foregrounded while others are more shadowed. Within these scenes, elements can be manipulated--different actors, in different actions, with varying objects. These scenes provide the experimental gestalts of a basic causal event in which an agent carries out a physical and perceptible change of state in a patient by means of direct body contact or with an instrument under the agent's control (cf. Lakoff and Johnson, 1982, p. 14.).

From this point on, I want to build from this all-too-sketchy foundation of Slobin's theory to what I think his theory means for studies of language socialization. What anthropologists must do is describe the scenes which surround children as they activate their fundamental OPs of perceiving, storing, and making patterns. Hence, ethnographies must literally describe not simply the sensory scenes--most notably the visual scenes--but also the social and pragmatic environmental features which do any of the following: allow the child to observe the scene, invite the child into the scene verbally or nonverbally, specifically reinforce the child's remembering and retelling of a scene in a particular way, allow the child to intuit ways of remembering and sharing the scene, or facilitate the child's partial creation of or accounting for the scenes.

Anthropologists must capture how children initially come to such scenes and recognize that though the current scene lies in the present, its pertinence is to future behavior and one must associate the current scene through analogical connection with past scenes. To do so, ethnographers must focus on the child as learner far more than on adults as teachers. The challenge is to come to conceive of the conceptual and grammatical notions which are in conformity with those which actually exist in the speech community, rather than with those which are taught. Very little of what children learn to see, transfer, and talk about is taught. The latter is the domain --that which is taught-- formed by the notions or ideas people hold to make up their norms and their representations of the world and the existing state of affairs. The former--the learning domain-- is what they actually do which can be observed as well as that which goes on within the head which we cannot observe. No actual overt teaching situation--one in which one or more individuals are engaged in a concrete set of interactions which the individual(s) in power believe is instructive for the others--can safely be assumed to be homologous with what the learner is seeing. Norms of what and how to teach need not directly inform concrete actions; instead they refer to types of actions, and it is only in the recognition of patterns of association that the learner stores and later retrieves this information (see Rogoff and Lave, 1984 for studies of informal learning and teaching).

Among all learners, several concepts underlie the specific fundamental social communicative operating principles we may someday be able to derive: a membership desire, intentionality, purposiveness, and a future goal-orientation linked to some aspect of social group identification. Traditionally, anthropologists have studied macro-processes--those such as religion, ideology, kinship and marriage systems--which account for the existence of ordered

membership in social groups. They have cared little for the sort of methodological individualism necessary to account for the individual learning the language and culture of his primary social group. To move in the direction of collaborating with the central disciplines which have focused on child language, anthropologists must focus within macrocosms on "how the purposive, or goal-oriented activities lead to the emergence and recreation of this intersubjectively shared world" (Holy and Stuchlik, 1984, p. 116).

The majority of previous research in child language has focused primarily at the level of making grammars, and hence the focal units have been the word--one or two on their way to making "whole" utterances, the utterance, the proposition, and most recently discourse units, such as conversation, story, etc. Researchers nowadays talk much more about analysis at the discourse level, but so far, these researchers--in the several fields in which discourse is now the vogue focus of inquiry, have not attended to what the discourse level actually means. For most scholars, it seems to be the universe of discourse which includes certain kinds of texts,--oral and written--which in turn include conversations, utterances, words, and sounds. When certain scholars have chosen spots out of this universe--or the other favorite metaphor is the stream of discourse--they have spoken of "narratives," "conversations," "elaborations," "inventories" etc. They have, however, not consistently defined these in terms of either function (what they do) or structures (how they do what they do). Functional and structural descriptors have been mixed. They have borrowed from the cognitive psychologists and those in artificial intelligence terms such as "frame," "script," and "schema," without respecting the distinct meanings these terms have had for those who originated them.

4.0. Getting into the stream of discourse

One of the most troublesome problems for researchers focusing on either perception or production in child language is determining the fundamental units which the child initially perceives. Research with very young infants indicates that they can discern their mother's voice, and they can detect differences in phonemes. But what of units within the stream of discourse directed to them as they get older? Aside from conversational exchanges which are marked primarily by single-turn exchanges, how do children make out the units of extended disourse--those occasions when a single speaker holds the floor for more than a single-unit response in a conversation? I suggest here (and describe the supporting data for this proposal elsewhere--Heath, forthcoming ab) that one of the first cuts into the stream of discourse for the child language learner is at the genre level. Speakers--even preverbal infants--mark discourse genres by intonational contours which are distinct from those of the more ordinary single-units of the basic speech exchange system of conversation. The intonational marking of the opening of these pieces of extended discourse trigger listeners to anticipate a stretch of discourse which will provide new information--comment on a particular

topic. Once we begin to hear, speak, write, or read any member of a genre type, at some level we "know" what is coming, and we set up something similar to what cognitive psychologists have termed a "schema" which guides not only our anticipation for comprehension, but also our recall and retrieval of the content and the form. It is this anticipation which allows comprehension--without anticipation there can be no comprehension. Slobin acknowledges the paucity of theory and data in regard to mechanisms of comprehension. It seems that genre as a way of breaking into the stream of discourse gives us some promise of being able to understand how the child understands or takes hold of that which is available for perception.

Genre is an old term--its etymological roots are in the Latin word genus (kind). It is universally agreed that prosody is the primary determinant of oral genres. Subject matter--or the recapturing of experience--and the effect or affective responses particular genres must call up in the audience are other signficant qualities. Most genres are determined certainly not by one characteristic, but by several in interaction (cf. Dubrow, 1982). Genres vary across language and social groups, but within each genre, with adequate descriptive and analytic research, we should be able to come up with probabilistic clusters of grammatical characteristics. Within each speech community, some genres are acknowledged and conventionalized. Some of these are purposively taught; others are neither recognized nor labelled, but are nevertheless used and recognized by members of the community. No doubt, the range of genres overtly recognized, normed, and taught correlates in patterned ways with certain features of the social organization of the societies, as well as with uses of space and time, and the mode of physical survival and socioeconomic placement.

4.1. Accessible situations, scenes, and genres.

Genres occur in situations, and usually in connection with particular scenes which are possible only in certain situations. Here we recall the "neglected-situation" noted by Goffman and considered by Cook-Gumperz in her work on situated speaking and reading, as well as the recent work of Herrmann (1983) on speech and situation. Some situations produce modes of action or problems (that is, bids for future action). Each genre carries within it certain primary characteristics of the situation or the manipulative activity scene, and there are only so many fundamental ways of re-experiencing or communicating about such situations or scenes of cause and effect or agent and product. The fundamental nature of physical scenes--and the primordial need to communicate about these fundamental actions and human actors--is strengthened by research reported by the anthropological linguist, Paul Friedrich. He notes that all natural conversational languages have about 1500 to 2000 "roots" which are irreducible in the sense that additional morphological segmentation is impossible. These roots are basic counters in the semantic code, but perhaps more important for our purposes here in considering how children learn to link language, culture, and thought in scenes is Friedrich's suggestion that these roots stand in some transparent and

iconic relation to extralinguistic reality. It seems that most roots can be more or less defined either by pointing or by acting them out (1979, p. 452). Hence these roots may represent some extralinguistic reality that makes them particularly susceptible for highlighting in the predictable scenes and basic genres of early child language.

It would seem--at least from the data available across descriptions of language socialization--that every society allows its young to hear and produce at least four basic genres which communicate about scenes. No doubt, there are other basic genres, and certainly, within each sociocultural group, these genres are realized in different proportions and in a variety of styles. Three basic genres which occur, no doubt, in all societies are: recasts, eventcasts, and accounts--those genres which report factual or actual scenes across stretches of time. The fourth relates to fictional or exaggerated accounts of real actors and events. All are forms of narratives which bring to consciousness past or imagined experience. All depend on gestalt-level processes of linking similarities and dissimilarities across space and time.

In essence, all communication is contractual, but part of the interactive contract of the speech exchange system is the expectation that speakers will express their experience in genres which allow listener/reader and speaker/writer to anticipate by embedding forecasts of what will come within the forms of the telling. Genres enable anticipation through association because they are marked both formally and in multiple ways. Initially, their prosody--meter and intonation--marks them. In addition, speakers mark their openings by formulaic phrases, vocatives, hortatory invocations, etc., as well as by gestures. Their configuration with on-going scenes of actors in action can also punctuate them--e.g., the simultaneity of the communication of or about the event with the actual event (as in dramatic play with toys). Formulaic pre-organizers, such as chiasmus (abba orderings of events to be told), help listeners forecast the order of what is to come. Each genre has distinctive patterns of parallelism, recursiveness, and formal redundancy.

4.2. Recasts

Let me now briefly explicate the genres (monologic and dialogic) I have proposed here as universal forms of extended discourse in child language learning. The first of these is the recast--bringing into present attention experiences of the past in which the speaker had one of several roles. The speaker either observed the scene, participated in it directly, heard the event told about by someone else, or created the scene. Remember here my earlier point about necessary areas of the anthropologist's description of situations available for learning by children in different societies. Recasts tend to be produced for a resulting action and to recognize primarily the law of usefulness in organization; that is, an event or series of events will be reported with consecutive chronology and predicatable reporting of elements in the scene. The base form of the recast across societies and languages is paratactic--clauses are strung together as roughly coordinate, with

relatively little indication of their logical relation or relative importance. Recasts tend to be characterized by asyndeton, one word following another without conjunctions which establish relations. Only in some societies do socializers shape children's recasts to be hypotactic, so that connections which to that group seem logically related--and especially causally or temporally related--are so expressed through grammatical relations--conditionals, temporal conjunctions, etc. In a majority of societies, adults who request recasts from children place high value on verbal imitations of events, not conclusive judgments children might make about how and why events occurred. In societies with a strong degree of conscious preparation of the young for schooling, these recasts are among the first genres which socializers call for and to which they give coaching attention. Societies differ in the extent to which and the ways in which they shape the recast. For example, in mainstream middle-class children in school-oriented groups in many societies, the recast is scaffolded so that its events are imitative of real events, reported chronologically with a constant degree of compression and with a consistent point of view. Some social groups spend a considerable amount of time shaping children's early recasts into this predictable format.

4.3. Eventcasts

The second universal genre of children's language learning is the eventcast, which is a verbal replay or explanation of activity scenes which are either in the current attention of the speaker/listener or writer/reader or are being planned for in the future. Sub-genres of this genre are often marked by an instrumental purpose--the goal is to obtain some result or some object either in the present or for the future. A child who notes that something is stored in a certain place, names the object, and indicates a desire for that object engages in a type of eventcast. Children who engage in dramatic play take up this genre for the cooperative negotiation of a jointly achieved future scene, script, and redesignation of real objects and people (e.g. by verbal announcement baskets become baby-beds, cats become tigers, etc.). Here we have a shifting index of grammatical features which must include subordination as well as some type of indication of hypothetical connectedness--from actions to results--as well as coordination.

Eventcasts are particularly susceptible to metalinguistic or metacognitive commentaries--which in the main across societies appear to occur primarily when the implicit decision process is interrupted or reaches a snag. It is then that societal members acknowledge language or thinking per se and speak of these at a meta level. It is certainly the case that formal schooling encourages such stop-action framing--the segmentation of learning into discrete units so that each task is calibrated in its relation to the next, and that much of what is currently taken to be literate behavior depends on the ability to segment language and to speak of it apart from its communicative stream. Those who regard themselves as teachers of language play specific roles in reinforcing these metalinguistic commentaries in different societies.

4.4. Accounts

This third type, accounts, are the earliest forms of narratives produced by children. Initially, children set accounts apart from requests or directives by an intonational contour and later by speech formulae, vocatives, etc. Children must initiate these, for accounts derive from children's experiences, from what they have been thinking of, and not from what adults wish them to report. Hence, children initiate accounts, sometimes in response to objects in the current scene which remind them of past events, and sometimes with no apparent objective reminder. Children's earliest accounts mark comment before topic, usually with a single lexical item or phrase. In general, adults do not explicitly verbalize the conventions for successful accounts, and children must therefore internalize the norms for these narratives, recognizing that each account must carry within it an ordered progression which allows the listener to anticipate what is coming.

Accounts are highly susceptible to individual differences across speakers, and in accounts, speakers may highlight their own particular views of pieces of scenes or outcomes of actors in events. The listener/reader must, however, perceive the model which directs the piece in order to re-cover, re-construct the mental sequence of the teller/writer and thus respond to the conscious attended experiences which are narrated within the piece. Process is recursive, because speakers and writers of accounts turn the text back again and again on itself to reassure the listener/reader that recovery is correct. The initiation here is from within the speaker/writer, not by invitation from external sources. Hence, the individual must obtain and hold the floor. To do the former, the speaker must signal that an account is forthcoming by some formulaic opening or prosodic cues; to hold the floor, the speaker must enable the listener to anticipate and thus comprehend what is coming (cf. Halliday, 1979).

The written essay is perhaps the most widespread form of the account for those who reach the high levels of formal schooling, and across the ages, explication of the conventions of the essay have defied rhetoricians, English teachers, and literary theorists. Within each essay, however, exists its own schema which must be written within the piece; the reader must discover the structure to understand the content. Essayists offer accounts when they write exposition or narrations of past experiences. This is a genre the conventions of which are not externally conventionalized in Anglo-Saxon society, but the conventions are implicit, highly variable, and built within each piece in a new cooperative contract between successful speaker and listener or between successful writers and their readers.

4.5. Stories

Societies around the world know "stories" and acknowledge this genre within their midst. Societies distinguish stories from accounts by the extent of intentional focus they give to a known and anticipated pattern or structure. Moreover, societies expect stories to contain some fictionalized elements and conscious reshaping of

language beyond ordinary use, and societies recognize that listeners play a necessary interpretive role for the story (and other literary forms as well, if these exist within the society). Fictional narratives take up events, actors, and results which are not real--have no verifiable existence outside the creator's head. In all societies for which I have examined data, the conventions for this genre are externalized; some members of the society can explicate some specific norms for telling and/or writing stories.

Much more research needs to be done on ways in which different societies enable children to distinguish real information from fictionalized knowledge. No doubt, teasing--and the exchange of roles and the manipulation of real events which teasing allows--has a considerable effect on this kind of language learning (cf. chapters 3 and 6, Heath, 1983). In each society, such learning is interdependent with the situations in which children are allowed merely to observe and listen to, rather than to participate in or to create recounts, accounts, or stories.

4.6. Ranges of variation

The extent of variation in the production, evaluation, and encouragement of these genres across communities in the same geographic region, but with different cultural histories has been illustrated in Ways with Words. Roadville is a white working-class community of families steeped for four generations in the life of the textile mills; Trackton is a black working-class community whose older generations grew up farming the land but whose current members work in the mills. The townspeople, black and white mainstream middle-class families oriented to school success for their children, provided their young with language socialization which reinforced genres which were compatible with those of the school and the workplaces of the region.

In mainstream families, the earliest genres modeled for the children were eventcasts which occurred around nurturing activities and later around books, toys, and games. These began for the preverbal child and continued throughout the preschool years between parent and child. Mainstream children heard many accounts as well as stories, and once they could talk, they were invited to give recasts as well as accounts and stories. By the time these children were three, they were expected to recognize, appreciate, and produce accounts and stories as well as eventcasts; invitations to recast decreased as children grew older. Before they were two years of age, mainstream children offered accounts which were attended to by adults who asked for further explanation of events children reported, commented on alternative outcomes of events, and assessed the attitudes and actions of reported actors.

For Roadville children, the earliest genres modeled were eventcasts which occurred primarily around nurturing activities and later around books, toys, games, and home projects. These began for the preverbal child and continued throughout the years of interaction between parent and child, but as the child became older, adults and children both contributed eventcasts about the child's future activities. Frequent invitations--more than one or two a week-- to

give accounts did not begin until Roadville children were in school, and these did not come to dominate communication between young and old in Roadville until children were old enough to leave home. Stories were invited in a status-related hierarchy, and even young adults told few stories. Recasts which were tightly scaffolded by those in power who had shared the activity were the predominant genre throughout the preschool years.

For Trackton children, adults did not reserve special genres or other language forms for children. Young children were active participants in rich multiparty conversations, and they often imitated the ends of utterances going on about them. Their first accounts, howver, came only when they could nonverbally attract the attention of adults and hold the floor with a genuine retelling of an experience unique to them. Trackton children had minimal experience with recasts in their own communities; yet their earliest associations with secondary institutions depended on their successful recapitulations of experiences shared with others. The earliest genres Trackton children offered were accounts or eventcasts--usually responses to real questions about their activities. The frequent teasing challenges by adults to toddlers soon resulted in stories, which were exaggerated accounts designed to hold the floor, often in cooperative production with others who joined in and created a fanciful tale. Though children might sometimes be asked to retell a story, they were almost never asked to give recasts. (For detailed data on the genres of these three communities, see Heath, forthcoming c).

4.7. Social group variation in space, time, and social organization of genres

The situations for hearing and producing genres of different types varied greatly across these three social groups. So long as these children remain within their primary socialization units, their linguistic and social performances enable them to achieve and maintain their self-identification. However if they must move into secondary institutions--such as the school or commercial establishments manned by members of other social groups--they must also learn the genres of representatives of these secondary institutions. Trackton children who had had little or no experience with recasts, for example, found that in formal schools--which in much of the world depend on recasts--their facility with other genres was dysfunctional. Children in the three groups had very different kinds and frequencies of experience in eventcasts--genres in which speakers bring past events to bear on present happenings with a sense of mingling the two in problem-solving or bids to action. Similarly there was great variation in their opportunities to produce accounts or to participate in an interactive reiterative process of building and testing hypotheses and challenging them--often drawing from written sources or from secondary authorities.

Accounts seem to have special implications for learning from written texts and for retaining habits of reading and writing. In a survey which I completed several years ago of reports of literacy projects around the world, the two factors which correlated with the

retention of literacy habits after program developers left the region were: opportunities to talk about written texts and stable institutions which supported these opportunities on a regular basis (Heath, forthcoming a). Both offering accounts and creating eventcasts which provide explication of the presuppositions on which the speakers' propositions are built are closely linked to the ability to incorporate information drawn from secondary sources--or what has not been personally experienced--such as that which comes from reading or from listening to those from outside one's primary social group. In the three sociocultural groups of Trackton, Roadville, and their meainstream neighbors, vast differences marked the ways in which members of each primary group responded linguistically when something went wrong in thinking or speaking. Mainstreamers froze ongoing talk--or written language--to talk aloud and to do what they called "think out" what had happened. In doing so, they had to lift out of the stream of language units of language and address or consider them at a meta level, analyzing discrete points. This linguistic habit varies across speech communities--some groups have far more meta-terms and situations for their incorporation into on-going language than others. Current research on the acquisition of literacy in formal schooling now suggests that the existence of this social and linguistic strategy cushions or smooths learning to read and write--especially alphabetic languages. For those language groups which do not stop their stream of speech and hold its parts up for analysis, the practice of doing so seems to have to precede literacy habits and production of those genres which schools and other secondary institutions will judge as acceptable and appropriate.

Drawing heavily from data collected by graduate student colleagues who have over the past three years carried out studies in homes and communities, I have recently completed a preliminary comparative analysis of the genres and situations available in some Mexican American and Chinese American homes of this area (Heath, forthcoming d). Davida Desmond provided data from a second-generation Chicano working-class community in San Jose over three years; Lucinda Alvarez provided data from a group of Mexican American families in the Bay Area; and Christinia Cheung is currently analyzing data from a working-class and a mainstream upper class Chinese family. Though certainly simply comparing situations and genres across societies is only a small step toward understanding the full range of complexities involved in language socialization, it is a step which will enable us to know much more about how these children respond in secondary institutions, such as the school. This research has led me to conclude that for all children, academic success depends not on the specific language they know, but on the ways of using language which they know--a simple point, but one which it is extremely difficult to get across to educators. What counts is not the language match between school and other institutions, but the conjunction or consistency across the genres and components of language variability between the home and the school.

5. Conclusions

Anthropologists have never been charged with being modest about their aims. The kind of description and analysis I have called for here to complement the work of psycholinguists requires years of living in the language group, or long-term and repeated fieldwork, such as that carried out by Bambi Schieffelin among the Kaluli and Elinor Ochs in Western Samoa. Analysis of data collected across the widest possible variation of situations must account for at least the types and frequency of situations in which children participate in different genres and sub-genres.

We need to know not only the genres they hear but also those which they are not invited to offer, those they offer which are verbally scaffolded by adults, and those they may initiate. We also need to know how other speakers deal with snags or breakdowns in their communication--through repetition of what the child offered or through clarification questions or restatements which freeze the stream of speech to focus on particular units, functions, and meaning interpretations. It is not enough to know, for example, that adults ask clarification questions; we need to know what these questions do to the language units to which they refer and the extent to which they facilitate meta-analysis of the communication process itself.

We must know also the space and time units in which communication around and among children occur. There is mounting evidence that the degree to which societies segment space and time into units which have designated functions correlates with certain aspects of social organization and strict assignment of roles. We need to know much more about the nature of the spaces children occupy as they learn to talk and the ways in which their time is viewed by their caregivers before we can draw any conclusions about how these habits affect the range and types of genres and subgenres within children's repertoires. We know at the very least that space and time have primary effect on the number and range of speakers who have access to young children over any period of time in their early language learning. From fundamental issues, such as the range of basic space orientations children learn to more complicated matters such as the degree to which long periods of attachments to mother's bodies in agricultural or household work reinforce nonverbal signalling over verbal signalling, we have many areas to explore.

Furthermore, we must learn much more than we now know about the various ways in which critical societal roles (such as parenting) are distributed within societies. The work of Elinor Ochs among the Western Samoans has probably done more to cue us to the importance of social organization for language learning than all the other anthropological work on language put together. Her findings about the status views of Samoan adults and who should be the caregivers for children suggest that we must look very carefully at the extent to which societies allow wide distribution of critical roles, such as parenting, or relate specific roles to societal members with certain age, sex, and preparation (cf. Ochs and Schieffelin, 1983).

Equally important and very much related to critical distribution

of roles is the issue of how the society views teaching and learning with regard to the young. I have sketched elsewhere the discourse forms or genre types which co-occur most predictably with three types of teaching situations: First, in the situation where instructor/expert verbalizes tasks and norms to a novice learner, eventcasts and recasts predominate. Second, where a demonstrator/expert displays with or without evaluative feedback or verbal directions for a novice, accounts and stories predominate. Third, where an expert works alongside an apprentice in an on-going stream of activity, genres show great variability across societies. Clearly, the language patterns of each of these and their subtypes vary greatly and can be expected to have an effect on the pervasiveness of such genres as the eventcast and the subgenre of metalinguistic commentary for situations beyond those devoted to learning.

Especially for social groups which are minorities within larger more powerful social groups, we need to know the extent to which the primary socialization unit allows intrusion or is forced to accept the invasion of secondary institutions into the socialization of their young. The most obvious linguistic influence of this situation lies in the question of how frequently children find themselves in speech situations in which there is little or no shared background for what they are attempting to communicate. Another factor important to language acquisition is the importance of written sources of information or the authority of those who are secondary to the primary group. The formal school is for most societies of the world an increasingly forceful norm determinant; formal teachers in schools select a relatively narrow range of genres through which they both offer instruction and accept the display of knowledge. The extent to which these genres are conjunctive or consistent with those of the primary unit deserves much more careful attention than it has received in the generally superficial studies of match and mismatch between home and school which have been in vogue for several years now. Researchers and schools are a long way from understanding that it is first necessary to understand what people do in language, before we try to decide what institutions want to make them do.

6. Toward a collaborative thought collective

As though the challenge of the type of research I have called for here is not enough, there is a further challenge which brings us back to Fleck's thought collectives. For scholars to be able to advance our knowledge on critical issues such as the socialization of intelligent behavior or the psychological effects of complex environments during the life span, we simply must have more interdisciplinary work and more cooperation across the disciplines. Scholars will have to accept that there are multiple ways to know and that holding out for certainty, facts, replicability, and undeniable generalizability may ultimately lead to stagnation. The anthropologist can gain information which the psychologist or psycholinguist will never learn; the reverse is also true. The challenge of learning how children acquire language will take all of

us together.

In intelligence research, this kind of cooperation is occurring. Robert Sternberg's recent book Beyond IQ lays out a three-part theory of intelligence which demands attention to language learning and to language socialization. He suggests that levels and patterns of intelligence, and their manifestations in intellectual performance, will be substantially affected by socialization processes. His triarchic theory includes the components of intelligence, the experiential facets of intelligence, and the need for contextual fit; the elements of these apply and are the same in all societies, but instantiations of these elements are very different and the realization of intellectual potential is critically affected by language socialization. The touchy issue of environmental complexity and its effect on cognitive functioning is one to which child language researchers will inevitably have to contribute, it seems to me. Current research now indicates that environmental complexity appears to lead to a self-directed rather than a conformist orientation, and yet the role of language on these issues is woefully omitted. For example, researchers recently addressing these topics in the journal Intelligence seem to accept experimental research on self-direction and over-extensions of knowledge and to ignore current work on neuronal plasticity and the effects of environmental stimuli on extending or rebuilding functions of the brain. Clearly, to address some core definitional issues of "environmental complexity," the research of anthropological linguists studying language socialization is needed along with that of psycholinguists and linguists. We must find better ways of accomplishing interdisciplinary research and achieving cross-disciplinary communication. Most conferences which have such communication as their goal fail miserably, because scholars talk past each other and refuse to read the literature of other fields and assess the relevance of the findings of other researchers for their own work. But I am not willing to give up hope. Cross-disciplinary listening and reading--and then talking and writing--demand commitment to questions and not disciplines. They ultimately depend on our being willing to make what may be regarded as the most exciting statement in the research world--"I don't know."

I began these comments by indicating how Fleck had confirmed my fears about trying to ply my trade, so to speak, to those who have different norms of certainty and greater certainty about facts than anthropologists or anthropological linguists do. I need to say now that Fleck does not leave his readers with only a hopeless note. He reminds us that talk is the way of breaking the barriers around each thought collective.

> A thought collective exists wherever two or more people are actually exchanging thoughts. He is a poor observer who does not notice that a stimulating conversation between two persons soon creates a condition in which each utters thoughts he would not have been able to produce either by himself or in different company. A special mood arises, which would not otherwise affect either partner

of the conversation but almost always returns whenever these persons meet again. Prolonged duration of this state produces, from common understanding and mutual misunderstanding, a thought structure that belongs to neither of them alone but nevertheless is not at all without meaning. Who is its carrier and who its originator? It is neither more nor less than the small collective of two persons. If a third person joins in, a new collective arises. (Fleck, 1981, p. 44).

I ask then for increased attention to the kind of thought collective Fleck suggests can arise across individuals in different disciplines who have questions about the socialization of intelligent and linguistic behavior. I suggest also the need for increased efforts to create such thought collectives across disciplines in order that we can move toward what several recent books have termed "the death of certainty."

The creation of these new thought collectives promises us as individual child language researchers enriched opportunities to learn about the infinitely complex interrelations of language, thought, and culture, and their implications in light of the neuronal plasticity of the human brain. Hence for us, just as for the child learning to use language to be a social being, we will come to recognize that language use in every moment is a reduction of uncertainty, but the uncertainty can never be totally reduced.

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